

132407-3

**REMARKS**

Claims 1-9, 11-39, 41-52, and 54 were pending in the present Application. Claims 1-25, 30-31, 39-40, 53 and 54 have been canceled, and Claims 26, 35, and 45 have been amended, leaving Claims 26-29, 32-38, and 41-52 for further consideration in the present amendment.

No new matter has been entered by way of amendment. For example, support for the amendment to Claims 26, 35, and 45 can be found at least in paragraph [0028].

Reconsideration and allowance of all pending claims are respectfully requested in view of the following remarks.

Rejection under 35 USC §112

The rejection of Claim 23 under 35 USC 112, second paragraph, has been rendered moot in view of the amendment thereto.

Claim Rejections under 35 U.S.C §103 (a)

A. Claims 1, 3-6, 8-9, 12-16, 17, 19, 20, 22-25, and 54 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent 3,762,882 to Grutza et. al. (Grutza). Applicants respectfully traverse.

The rejection has been rendered moot in view of the cancellation thereof.

B. Claims 2, 7, 11 and 18 stand rejected under 35 USC § 103(a) as being unpatentable over Grutza in view of U.S. Patent No. 6,372,012 to Majagi et al. (Majagi). Applicants respectfully traverse.

The rejection has been rendered moot in view of the cancellation thereof.

132407-3

C. Claims 26-30, 32-34, 45-47, and 49-52 stand rejected under 35 USC § 103(a) as being unpatentable over Grutza in view of U.S. Patent No. 4,305,792 to Kedward et al. (Kedward) and further in view of U.S. Patent No. 4,833,041 to McComas (McComas). Applicants respectfully traverse.

Grutza is generally directed to electroplating films of diamond and diamond particles in a metal matrix.

Majagi is generally directed to superhard filler hardmetal and methods of making the superhard fillers. The superhard filler hardmetal generally includes a binder metal matrix and at least one superhard filler.

Kedward is generally directed to processes for electroless plating of metal coatings including particles onto a panel.

McComas is generally directed to corrosion and wear resistant coatings.

Independent process Claims 26, and 45 have in common the feature of forming nanoparticles of an additive and a metal ion in situ.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all elements of the invention be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

None of these references, individually or in combination, teach or suggest processes that include forming nanoparticles of an additive and a metal ion in situ upon heat treatment. Although McComas teaches and suggests heating after removal of the coated article from the bath to increase hardness, there is no disclosure or suggestion of adding the additives to the bath as claimed by Applicants and forming nanoparticles of the additive and a metal ion in situ upon heat treatment.

132407-3

As all elements of independent Claims 26, 35, and 45 have not been taught, these claims are patentable over Grutza. Given that Claims 27-30, 32-34, 46-47, and 49-52 each further limit and ultimately depend from one of these independent claims, they too are patentable for at least the same reasons.

D. Claims 31 and 48 stand rejected under 35 USC § 103(a) as being unpatentable over Grutza in view of Kedward and McComas and further in view of Majagi. Applicants respectfully traverse.

For reasons discussed above, the combination of references fail to teach or suggest processes that include forming nanoparticles of an additive and a metal ion in situ upon heat treatment. Accordingly, the rejection of Claims 31 and 48 should be withdrawn.

E. Claims 35-37, 39, and 41-44 stand rejected under 35 USC § 103(a) as being unpatentable over Grutza in view of Majagi. Applicants respectfully traverse.

Independent process Claim 35 also includes the feature of forming nanoparticles of an additive and a metal ion in situ. The cited references fail to teach or suggest this feature, and because of this, the rejection is requested to be withdrawn. Given that Claims 36-37, 39, and 41-44, depend from Claim 35, these claims are also patentable.

F. Claim 38 stands rejected under 35 USC § 103(a) as being unpatentable over Grutza in view of Majagi and further in view of U.S. Patent No. 3,061,525 to Grazen et al. (Grazen). Applicants respectfully traverse

Claim 38 depends from Claim 35, and as such, includes the feature of forming nanoparticles of an additive and a metal ion in situ. For reasons discussed above, Grutza and Majagi fail to teach this feature. Grazen fails to compensate for the deficiencies of the cited references. There is no disclosure of forming nanoparticles in situ as claimed by Applicants. For at least this reason the rejection is improper and should be withdrawn.

132407-3

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0868.

Respectfully submitted,

CANTOR COLBURN LLP

By 

Peter R. Hagerty

Registration No. 42,618

Date: April 25, 2006  
CANTOR COLBURN LLP  
1170 Peachtree Street, Suite 750  
Atlanta, GA 30309  
Telephone (404) 607-9991  
Facsimile (404) 607-9981  
Customer No.: 23413